Department Of Energy Guide For Project Execution Plans

A guide to issues facing county commissioners regarding wind project development.

In September 2017, Hurricane Maria hit Puerto Rico, completely upending the energy grid of the small island. The nearly year-long power outage that followed vividly shows how the new climate reality intersects with race and access to energy. The island is home to brown and black US citizens who lack the political power of those living in the continental US. As the world continues to warm and storms like Maria become more commonplace, it is critical that we rethink our current energy system to enable reliable, locally produced, and locally controlled energy without replicating the current structures of power and control. In Revolutionary Power, Shalanda Baker arms those made most vulnerable by our current energy system with the tools they need to remake the system in the service of their humanity. She argues that people of color, poor people, and indigenous people must engage in the creation of the new energy system in order to upend the unequal power dynamics of the current system. Revolutionary Power is a playbook for the energy transformation complete with a step-by-step analysis of the key energy policy areas that are ripe for intervention. Baker tells the stories of those who have been left behind in our current system and those who are working to be architects of a more just system. She draws from her experience as an energy-justice advocate, a lawyer, and a queer woman of color to inspire activists working to build our new energy system. Climate change will force us to rethink the way we generate and distribute energy and regulate the system. But how much are we willing to change the system? This unique moment in history provides an unprecedented opening for a deeper transformation of the energy system, and thus, an opportunity to transform society. Revolutionary Power shows us how.

The Smart Grid has the potential to revolutionize electricity delivery systems, and the security of its infrastructure is a vital concern not only for cyber-security practitioners, engineers, policy makers, and utility executives, but also for the media and consumers. Smart Grid Security: An End-to-End View of Security in the New Electrical Grid explores the important techniques, challenges, and forces that will shape how we achieve a secure twenty-first century electric grid. Includes a Foreword by Michael Assante, President and CEO, National Board of Information Security Examiners Following an overview of the components of the Smart Grid, the book delves into the evolution of security standards and regulations and examines ways in which the Smart Grid might be regulated. The authors discuss the technical details about how metering technology is being implemented and the likely threats and vulnerabilities that utilities will face. They address the home area network (HAN) and examine distribution and transmission—the foundation for the delivery of electricity, along with distributed generation, micro-grids, and operations. The book explores future concepts—such as energy storage and the use of plug-in electric vehicles (PEVs)—in addition to the concomitant risk for fraud and manipulation with stored energy. Consumer-related issues are discussed as they pertain to emerging ways of receiving and generating energy. The book examines dysfunctions ranging from inadvertent outages to cyber-attack and presents recommendations on how to respond to these incidents. It concludes with speculation of future cyber-security challenges and

discusses new ways that the grid can be defended, such as better key management and protection. Written in a style rigorous enough for the practitioner yet accessible to a broad audience, this comprehensive volume covers a topic that is becoming more critical to industry and consumers everywhere.

This Guide to the Race to Zero Student Design Competition is a comprehensive overview of the framework, timeline, design parameters, judging criteria, and awards. This Guide provides links to resources that the teams will need.

In response to a request from Congress, the U.S. Department of Energy (DOE) asked the National Academies to evaluate its plans for managing radioactive wastes from spent nuclear fuel at sites in Idaho, South Carolina, and Washington. This interim report evaluates storage facilities at the Savannah River Site in South Carolina, with a particular focus on plans to seal the tanks with grouting. The report finds that tanks at the site do not necessarily need to be sealed shut as soon as the bulk of the waste has been removed. Postponing permanent closure buys more time for the development and application of emerging technologies to remove and better immobilize residual waste, without increasing risks to the environment or delaying final closure of the "tank farms." The report also recommends alternatives to address the lack of tank space at the site, as well as the need for focused R&D activities to reduce the amount and improve the immobilization of residual waste in the tanks and to test some of the assumptions used in evaulating long-term risks at the site.

Energy Savers---Tips on Saving Energy and Money at Home (Fifth Printing).

Oak Ridge National Laboratory's (ORNL's) Sustainable Transportation Program (STP) works with government and industry to develop scientific knowledge and new technologies that accelerate the deployment of energy-efficient vehicles and intelligent, secure, and accessible transportation systems. Scientists are tackling complex challenges in transportation using comprehensive capabilities at ORNL's National Transportation Research Center and the laboratory's signature strengths in high-performance computing, neutron sciences, materials science, and advanced manufacturing. Research focuses on electrification, efficiency of combustion and emissions, data science and automated vehicles, and materials for future systems. Highlights from 2016 include: Electrification, Efficiency of combustion and emission controls, Data science and automated vehicles, and Materials for future systems. This annual report is a short summary and snapshot featuring several other accomplishments from the STP team. From motors that achieve higher power density without rare earth materials to thought leadership on combustion as a continuum to new technologies in multimaterial joining and vehicle cybersecurity, ORNL researchers are shaping the future of transportation. Related items: Transportation & Navigation publications can be found here: https://bookstore.gpo.gov/catalog/transportation-navigation Biofuels & Renewable Energy publications can be found here: https://bookstore.gpo.gov/catalog/biofuels-renewable-energy Energy & Fuels publications can be found here: https://bookstore.gpo.gov/catalog/energy-fuels Engineering publications can be found here: https://bookstore.gpo.gov/catalog/engineering

This new International Version includes all material covered in the standard eighth edition, but numerical data and calculations are expressed in Systeme International (SI) units. Completely revised, this latest edition includes new chapters on electrical systems; motors and drives; commissioning; and human behavior and facility energy management. Also updated are chapters on lighting, HVAC systems, web-based building automation, control systems, green buildings, and greenhouse gas management. Written by

respected professionals, this book examines objectives of energy management and illustrates techniques proven effective for achieving results.

The requirement to buy energy- and water-efficient products applies to federal purchases made through any procurement pathway (e.g., purchase cards, e-retailers, and solicitations) and to a wide variety of federal projects. The Federal Energy Management Program’s (FEMP's) Buy Energy-Efficient Products buyer overview fact sheet and Contracting for Efficiency best practices guide for product procurement are designed to support federal buyers in the purchase of energy- and water-efficient products.

Provides consumers with home energy and money savings tips such as insulation, weatherization, heating, cooling, water heating, energy efficient windows, landscaping, lighting, and energy efficient appliances.

Energy risk has reappeared on the corporate and social agenda with a bang and the complexity of the issues has increased many-fold since the days of the last great wave of concern following the oil crises of the 1970s. Steven Fawkes’ Energy Efficiency is a comprehensive guide for managers and policy-makers to the fundamental questions underpinning energy-efficiency and our responses to it: • what do we really mean by energy efficiency? • what is the potential (in different dimensions)? • why it is important? • what management processes lead to optimisation of energy efficiency? • what technologies are useful for improving energy efficiency? • what policies can be used to promote energy efficiency? • how can energy efficiency be financed? • how can energy suppliers engage with energy efficiency? The result is the most comprehensive review to-date of the barriers and opportunities associated with improving energy efficiency. Clearly written and erudite, Steven Fawkes addresses every aspect of energy efficiency, including the huge and vitally important untapped potential offered by effective energy management and the application of existing technology. He also identifies barriers, such as the rebound effect and how they can be mitigated and he provides a comprehensive review of innovative energy efficiency financing options. This book is a ‘must read’ for anyone with an interest in energy supply and demand reduction.

The Dept. of Energy (DoE) has long suffered from contract and mgmt. oversight weaknesses. Since 1990 DOE contact mgmt. has been on a list of programs at high risk for fraud, waste, abuse, and mismanagement. In 2003 DoE¿s Office of Science (Science) unveiled its 20-year plan to acquire and upgrade potentially costly research facilities. In light of DoE¿s history and the potential cost of this ambitious plan, the author was asked to examine Science¿s project mgmt. performance. This report determined: (1) the extent to which Science has managed its projects within cost and schedule targets; (2) the factors affecting project mgmt. performance; and (3) challenges that may affect Science¿s future performance. Aloise reviewed 42 selected Science projects. Includes recommendations. Illustrations.